

**REMARKS**

**N.B.** Applicant respectfully calls the Examiner's attention to the Information Disclosure Statement filed on June 11, 2003 (i.e., within three months of the April 21, 2003 filing date of the CPA). It is requested that the Examiner consider the listed references, and return to the undersigned attorney an initialed copy of the Form PTO/SB/08 A & B (modified).

Claims 1-4 and 9-17 are pending.

Claims 1 and 2 stand rejected under 35 U.S.C. § 102(b) as being anticipated by Narui '583 (newly cited).

Claims 1-4 and 9-17 stand rejected under 35 U.S.C. § 102(e) as being anticipated by Kamiyama '638 first cited in the Office Action (Paper No. 12) mailed December 13, 2001.

A rejection based on anticipation requires that the applied reference disclose, either expressly or inherently, each limitation of each rejected claims, or in other words, that each of the rejected claims be readable, either expressly or inherently, on the disclosure of the applied reference. Applicant respectfully submits that clearly such is **not** the case here.

More specifically, and in regard to the rejection of claims 1 and 2 as being anticipated by Narui '583, it is clear that Narui '583 does not disclose, either expressly or inherently, each limitation of each of claims 1 and 2. Even though Narui discloses a selective growth, Narui does not disclose, either expressly or inherently, or even suggest, the claim limitation, "at least one semiconductor layer of a second conductivity type is selectively grown...at a growth temperature which is higher than a temperature where the material of said mask decomposed", which is clearly recited in each of claims 1 and 2. Also, Narui does not disclose, either expressly or

inherently, or even suggest Applicant's claim limitation, "a mask having an opening", which is clearly recited in each of claims 1 and 2 (2/1).

Furthermore, claim 2 (2/1) recites the additional limitation, the "semiconductor layer is a nitride-based semiconductor layer", a limitation which is not disclosed, either expressly or inherently, or even suggested in Narui.

Therefore, Narui is **incapable of anticipating either claim 1 or claim 2**.

Therefore, Applicant respectfully requests the Examiner to reconsider and withdraw the rejection of claims 1 and 2 under 35 U.S.C. § 102(b) as being anticipated by Narui '583, or else to explain to Applicant where the Examiner finds any disclosure, either expressly or inherently, of the two above-quoted limitations in claims 1 and 2.

As for the rejection of claims 1-4 and 9-17 as being anticipated by Kamiyama '638, independent claim 1 contains the limitations, a semiconductor layer of "a first conductivity type", another semiconductor layer of "a second conductivity type", and "said second conductivity type being different from said first conductivity type", which limitations are not disclosed, either expressly or inherently, or even suggested in Kamiyama which clearly does not describe the existence of semiconductor layers of a first and a second conductivity type.

Therefore, Applicant respectfully requests the Examiner to reconsider and withdraw the rejection of claims 1-4 under 35 U.S.C. § 102(e) as being anticipated by Kamiyama '638.

As for the rejection of claims 9-17 as being anticipated by Kamiyama, independent parent claim 9 contains the limitation, " forming, on an underlying **nitride-based** semiconductor layer,

a mask of a material including nitrogen as a constituent element". In **contrast**, in Kamiyama the SiO<sub>2</sub> mask is formed on a **sapphire** substrate.

Thus, it is clear that Kamiyama does not disclose, either expressly or inherently, each limitation of independent parent claim 9, whereby, for this reason alone, claims 9-17 should be **allowable**.

Furthermore, in Kamiyama, as seen in Fig. 38 thereof, a GaN layer is grown on the GaN buffer layer. More specifically, after the stripped SiO<sub>2</sub> mask 10387 is formed on the sapphire substrate 1031, GaN is grown in a two-step growth process to form the GaN low temperature buffer layer 1033 and the GaN high temperature growth layer 1034. This process is a **hetero-epitaxial** growth.

In **contrast**, in the invention defined in Claim 9, after the mask formed of the material including nitrogen as a constituent element is formed on the underlying nitride-based semiconductor layer, the nitride-based semiconductor layer is grown on the "underlying nitride-based semiconductor layer" in "an opening of said mask". This process is a homo-epitaxial growth.

Thus, because of this additional distinction, Kamiyama further fails to anticipate the invention as recited in claim 9.

Therefore, since Kamiyama does not disclose, either expressly or inherently, all of the limitations of independent claim 9, Applicant respectfully requests the Examiner to reconsider and withdraw the rejection of claims 9-17 under 35 U.S.C. § 102(e) as being anticipated by Kamiyama.

In summary, then, since Applicant has shown that neither Narui '583 nor Kamiyama discloses, either expressly or inherently, all of the limitations of each of claims 1-4 and 9-17, Applicant respectfully requests the Examiner to reconsider and withdraw the two rejections under 35 U.S.C. § 102, and to find the application to be in condition for allowance with all of claims 1-4 and 9-17.

### REQUEST FOR INTERVIEW

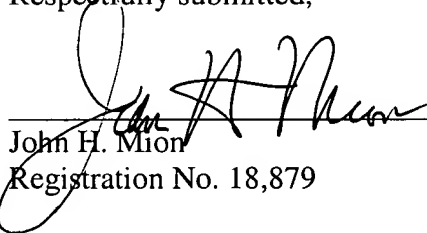
If the Examiner does not feel that the two rejections based on anticipation have been overcome by the above amendments and arguments, and in view of the protracted prosecution/examination of this application (the parent application was filed on September 29, 1998), Applicant respectfully requests the Examiner to **call the undersigned attorney** to discuss any unresolved issues and to expedite the disposition of the application.

Applicant files concurrently herewith a Petition (with fee) for an Extension of Time of One Month. Applicant hereby petitions for any extension of time which may be required to maintain the pendency of this application, and any required fee for such extension is to be

AMENDMENT UNDER 37 C.F.R. § 1.111  
U.S. APPLN. NO. 09/161,981

charged to Deposit Account No. 19-4880. The Commissioner is also authorized to charge any additional fees under 37 C.F.R. § 1.16 and/or § 1.17 necessary to keep this application pending in the Patent and Trademark Office or credit any overpayment to said Deposit Account No. 19-4880.

Respectfully submitted,



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